

WHAT IS CLAIMED IS:

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#1

1. A method of manufacturing a radiation image conversion panel in which a stimuable phosphor-containing coating solution, which contains at least a stimuable phosphor and a binder, is applied to a support by use of an extrusion coater such that the film thickness of a coated film of the stimuable phosphor-containing coating solution is 100 μm or more.

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2. A method of manufacturing a radiation image conversion panel according to claim 1, wherein the film thickness of the coated film of the stimuable phosphor-containing coating solution is from 200 to 1,000 μm .

3. A method of manufacturing a radiation image conversion panel according to claim 1, wherein at least one of the support and the extrusion coater is moved, and the speed of the movement is from 0.5 to 50 m/min.

4. A method of manufacturing a radiation image conversion panel according to claim 2, wherein at least one of the support and the extrusion coater is moved, and the speed of the movement is from 0.5 to 50 m/min.

5. A method of manufacturing a radiation image conversion panel according to one of claim 1, wherein the viscosity of the stimuable phosphor-containing coating solution is from 1 to 10 Pa · s.

6. A method of manufacturing a radiation image conversion panel according to one of claim 2, wherein the viscosity of the stimuable phosphor-containing coating solution is from 1 to 10 Pa · s.

7. A method of manufacturing a radiation image conversion panel according to one of claim 3, wherein the viscosity of the stimuable phosphor-containing coating solution is from 1 to 10 Pa · s.

8. A method of manufacturing a radiation image conversion panel according to one of claim 4, wherein the viscosity of the stimuable phosphor-containing coating solution is from 1 to 10 Pa · s.

9. A method of manufacturing a radiation image conversion panel according to one of claim 1, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of

the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

10. A method of manufacturing a radiation image conversion panel according to one of claim 2, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

11. A method of manufacturing a radiation image conversion panel according to one of claim 3, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

12. A method of manufacturing a radiation image conversion panel according to one of claim 4, wherein the stimuable phosphor-containing coating solution is applied such that a gap A

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(μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

13. A method of manufacturing a radiation image conversion panel according to one of claim 5, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

14. A method of manufacturing a radiation image conversion panel according to one of claim 6, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

15. A method of manufacturing a radiation image conversion panel according to one of claim 7, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

16. A method of manufacturing a radiation image conversion panel according to one of claim 8, wherein the stimuable phosphor-containing coating solution is applied such that a gap A (μm) between a discharge opening at the tip of the extrusion coater and the support, and a film thickness B (μm) of the coated film of the stimuable phosphor-containing coating solution satisfy the following relational expression.

$$0.75 \times B + 100 \leq A \leq 1.10 \times B + 130$$

17. A method of manufacturing a radiation image conversion panel according to one of claim 1, wherein the extrusion coater is disposed on a surface of a first plane, and the support is disposed on a roller whose axis is located parallel to a direction orthogonal to the direction in which the stimuable phosphor-containing coating solution is discharged in a second plane that is located above the discharge opening at the tip of the extrusion coater and parallel to

the first plane, such that an angle formed by, on the one hand, the direction of the shortest distance between the tip discharge opening and, on the other hand, the roller and the second plane is from 0 to 30 °.

18. A method of manufacturing a radiation image conversion panel according to one of claim 1, wherein the extrusion coater is disposed on a surface of a first plane, and the support is disposed on a roller whose axis is located parallel to a direction orthogonal to the direction in which the stimuable phosphor-containing coating solution is discharged in a second plane that is located above the discharge opening at the tip of the extrusion coater and parallel to the first plane, such that an angle formed by the direction in which the stimuable phosphor-containing coating solution is discharged and the second plane is from 5 to 60 °.

19. A radiation image conversion panel obtained by the method of manufacturing a radiation image conversion panel in which a stimuable phosphor-containing coating solution, which contains at least a stimuable phosphor and a binder, is applied to a support by use of an extrusion coater such that the film thickness of a coated film of the stimuable phosphor-containing coating solution is 100 μm or more.

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